**Resolute Forest Products – Catawba Mill**
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

FED EX NO. 7782 5831 2466

January 24, 2017

Technical Management Section
South Carolina Department of Health and Environmental Control
Bureau of Air Quality
2600 Bull Street
Columbia, SC 29201-1708

Re: 2016 Fourth Quarter CEM Report Summaries
Air Permit Number TV-2440-0005

Dear Sir or Madam:

Enclosed are the 2016 Fourth Quarter Continuous Emission Monitor Report Summaries and Title V monitoring report for Resolute Forest Products – Catawba Mill, Air Permit Number TV-2440-0005. Logs detailing each specific incident are also enclosed.

Based on information and belief formed after reasonable inquiry, I certify to the best of my knowledge, that the statements and information in this submission are true, accurate, and complete.

If there are any questions, please feel free to contact Mike Swanson at (803) 981-8010.

Sincerely,

Wayne Griffin
General Manager

Enclosures

cc: Alex Latta, Region 3 Lancaster EQC Office
EPA Region 4
Environmental File 208.18

## 2016 Fourth Quarter CEM Report Summaries

### Title V Permit Unit ID 01 – Woodyard

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 01.1 | 1300 | N/A | N/A | Refers to FW.4 |
| 01.2 | 1300 | N/A | N/A | Refers to FW.4 |
| 01.3 | 1300 | No | N/A | Refers to FW.4 |
| 01.4 | 1300 | N/A | N/A | Refers to FW.1 |

### Title V Permit ID 02 – Kraft Process – Kraft Pulp Mill

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 02.1 | 5210, 5220, 5230, 5240, and 5250 | No | N/A | N/A |
| 02.2(A) | 5210 & 5230 | Yes | Semi-annual | See below. |
| 02.2(B) | 5210 & 5230 | N/A | N/A | Refers to 08.7. |
| 02.3 | 5210, 5220, 5230, 5240, and 5250 | N/A | N/A | Refers to MACT conditions. |
| 02.4 | 5210, 5220, 5230, 5240, and 5250 | N/A | N/A | Refers to FW.1. |

**Condition 02.2(A)**
**Equip IDs 5210 and 5230** **Reporting Frequency: Semi-Annually**

There were no parameters outside the ranges listed in Attachment H for the scrubber (Control Device ID 5260C) during the semi-annual period.

## 2016 Fourth Quarter CEM Report Summaries

### Title V Permit ID 03 – Kraft Process: Kraft Bleach Plant

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 03.1 | 5300 | Yes | Semi-annual | See note below. |
| 03.2 | 5300 | N/A | N/A | Refers to MACT conditions. |
| 03.3 | 5300 | N/A | N/A | Refers to FW.1 |

**Condition 03.1**
**Equip ID 5300** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.03.1.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is continuous monitoring of specific scrubber parameters.
- Cause(s) and corrective action(s) are detailed on the enclosed logs.

There was no incident during which a parameter was outside the maximum rate during the reporting period. See the enclosed log for details.

### Title V Permit ID 04 – Kraft Process: Chlorine Dioxide Generator

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 04.1 | 1790 | Yes | Semi-annual | See note below. |
| 04.2 | 1790 | No | N/A | N/A |

**Condition 04.1**
**Equip ID 1790** **Reporting Frequency: Semi-Annually**

There was no incident in which a surrogate monitoring parameter was outside the range for the chlorine dioxide scrubber (Control Device ID 1790C) during the semi-annual reporting period. See the enclosed log for details.

### Title V Permit ID 05 – TMP Process

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 05.1 | 4400 | No | N/A | N/A |
| 05.2 | 4400 | No | N/A | N/A |

## 2016 Fourth Quarter CEM Report Summaries

### Title V Permit ID 06 – Paper Mill

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 06.1(A) | 2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704 | N/A | N/A | Refers to FW.4. |
| 06.1(B) | 2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704 | Yes | Semi-annual | See note below. |
| 06.2(A) | 2010, 4610, 4120, 4130, & 9900 | No | N/A | N/A |
| 06.2(B) | 4120 & 4130 | Yes | Semi-annual | See note below. |
| 06.3(A) | 2010 | No | N/A | N/A |
| 06.3(B) | 4120 & 4130 | Yes | Semi-annual | See note below. |
| 06.3(C) | 4610 | Yes | Semi-annual | See note below. |
| 06.3(D) | 9900 | Yes | Semi-annual | See note below. |
| 06.4 | 4110 | Yes | Semi-annual | See note below. |
| 06.5(A) | 2010 | No | N/A | N/A |
| 06.5(B) | 4120 & 4130 | Yes | Semi-annual | See note below. |
| 06.5(C) | 4610 | Yes | Semi-annual | See note below. |
| 06.5(D) | 9900 | Yes | Semi-annual | See note below. |
| 06.6(A) | 4610 | Yes | Semi-annual | See note below. |
| 06.6(B) | 9900 | Yes | Semi-annual | See note below. |
| 06.7 | 4110 | No | N/A | N/A |
| 06.8 | 2010 | No | N/A | N/A |
| 06.9 | 2000, 2010, 2100, 4600, 4610, 4100, 4110, 4120, & 4130 | N/A | N/A | Refers to FW.1 |
| 06.10 | 2005, 2010, 4605, & 4610 | N/A | N/A | Refers to MACT conditions |

**Condition 06.1(B)**
**Equip IDs 2000, 2005, 4100, 4110, 4600, 4605, 9700, 9701A, 9701B, 9702, 9703, & 9704** **Reporting Frequency: Semi-Annually**

During the reporting period, no abnormal dust emissions were noted on daily inspection reports during the semi-annual period.

**Condition 06.2(B)**
**Equip IDs 4120 & 4130** **Reporting Frequency: Semi-Annually**

Kerosene was not utilized in the Hot Oil Heating System (4130); therefore, no visual inspections were performed during the reporting period. The Infrared Dryer (4120) was removed from service at the end of May 2013.

**Condition 06.3(B)**
**Equip IDs 4120 & 4130** **Reporting Frequency: Semi-Annually**

The Infrared Dryer (4120) was removed from service at the end of May 2013. Monthly fuel usages of natural gas, kerosene, and propane for the Hot Oil Heating System (4130):

**No. 3 Paper Machine**
**Hot Oil Heater Fuel Usage**
**(ID 4130)**

| Month | Natural Gas (MMBtu) | Propane (gallons) | Kerosene (gallons) |
|---|---|---|---|
| June-15 | 4,618 | 0 | 0 |
| July-15 | 4,714 | 0 | 0 |
| August-15 | 4,429 | 0 | 0 |
| September-15 | 4,618 | 0 | 0 |
| October-15 | 4,838 | 0 | 0 |
| November-15 | 4,208 | 0 | 0 |
| December-15 | 5,336 | 0 | 0 |
| January-16 | 5,037 | 0 | 0 |
| February-16 | 4,421 | 0 | 0 |
| March-16 | 4,535 | 0 | 0 |
| April-16 | 4,455 | 0 | 0 |
| May-16 | 3,705 | 0 | 0 |
| June-16 | 2,752 | 0 | 0 |
| July-16 | 2,849 | 0 | 0 |
| August-16 | 3,096 | 0 | 0 |
| September-16 | 3,446 | 0 | 0 |
| October-16 | 4,406 | 0 | 0 |
| November-16 | 4,122 | 0 | 0 |
| December-16 | 4,330 | 0 | 0 |

## 2016 Fourth Quarter CEM Report Summaries

**Condition 06.3(C)**
**Equip ID 4610** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of kerosene and propane for the No. 2 Coater Dryer (4610) are shown below:

| | Kerosene (gallons) | 12-Month Sum | Propane (gallons) | 12-Month Sum |
|---|---|---|---|---|
| June-15 | 0 | 25,364 | 0 | 0 |
| July-15 | 0 | 25,364 | 0 | 0 |
| August-15 | 0 | 25,364 | 0 | 0 |
| September-15 | 0 | 25,364 | 0 | 0 |
| October-15 | 0 | 25,364 | 0 | 0 |
| November-15 | 0 | 18,669 | 0 | 0 |
| December-15 | 0 | 18,669 | 0 | 0 |
| January-16 | 0 | 18,669 | 0 | 0 |
| February-16 | 0 | 0 | 0 | 0 |
| March-16 | 0 | 0 | 0 | 0 |
| April-16 | 0 | 0 | 0 | 0 |
| May-16 | 0 | 0 | 0 | 0 |
| June-16 | 0 | 0 | 0 | 0 |
| July-16 | 0 | 0 | 0 | 0 |
| August-16 | 0 | 0 | 0 | 0 |
| September-16 | 0 | 0 | 0 | 0 |
| October-16 | 0 | 0 | 0 | 0 |
| November-16 | 0 | 0 | 0 | 0 |
| December-16 | 0 | 0 | 0 | 0 |

**Condition 06.3(D)**
**Equip ID 9900** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas and propane for the Paper Machine Make-Up Air Units (4610) are shown below:

| | Natural Gas (scf) | 12-Month Rolling Sum | Propane (gallons) | 12-Month Rolling Sum |
|---|---|---|---|---|
| June-15 | 5 | 34,274,857 | 0 | 0 |
| July-15 | 8 | 34,274,814 | 0 | 0 |
| August-15 | 252 | 34,275,067 | 0 | 0 |
| September-15 | 137 | 34,275,204 | 0 | 0 |
| October-15 | 3,009,664 | 35,889,096 | 0 | 0 |
| November-15 | 5,036,252 | 37,485,959 | 0 | 0 |
| December-15 | 5,008,259 | 38,921,364 | 0 | 0 |
| January-16 | 10,241,660 | 38,497,969 | 0 | 0 |
| February-16 | 8,327,449 | 35,265,612 | 0 | 0 |
| March-16 | 3,566,100 | 35,532,047 | 0 | 0 |
| April-16 | 1,619,512 | 36,809,298 | 0 | 0 |
| May-16 | 57 | 36,809,355 | 0 | 0 |
| June-16 | 222 | 36,809,572 | 0 | 0 |
| July-16 | 1,213 | 36,810,777 | 0 | 0 |
| August-16 | 43 | 36,810,568 | 0 | 0 |
| September-16 | 0 | 36,810,430 | 0 | 0 |
| October-16 | 3,609,657 | 37,410,423 | 0 | 0 |
| November-16 | 4,607,148 | 36,981,319 | 0 | 0 |
| December-16 | 9,418,206 | 41,391,266 | 0 | 0 |

**Condition 06.4**
**Equip ID 4110** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas, kerosene, and propane for the Air Floatation Dryer (4110) are shown below:

| Month | Natural Gas MMBtu | Propane (gallons) | Kerosene (gallons) | PM / MMBtu |
|---|---|---|---|---|
| June-15 | 8,140 | 0 | 0 | 0.0076 |
| July-15 | 8,309 | 0 | 0 | 0.0076 |
| August-15 | 7,805 | 0 | 0 | 0.0076 |
| September-15 | 8,138 | 0 | 0 | 0.0076 |
| October-15 | 8,527 | 0 | 0 | 0.0076 |
| November-15 | 7,416 | 0 | 0 | 0.0076 |
| December-15 | 9,403 | 0 | 0 | 0.0076 |
| January-16 | 8,878 | 0 | 0 | 0.0076 |
| February-16 | 7,792 | 0 | 0 | 0.0076 |
| March-16 | 7,992 | 0 | 0 | 0.0076 |
| April-16 | 7,851 | 0 | 0 | 0.0076 |
| May-16 | 6,530 | 0 | 0 | 0.0076 |
| June-16 | 4,851 | 0 | 0 | 0.0076 |
| July-16 | 5,022 | 0 | 0 | 0.0076 |
| August-16 | 5,456 | 0 | 0 | 0.0076 |
| September-16 | 6,074 | 0 | 0 | 0.0076 |
| October-16 | 7,765 | 0 | 0 | 0.0076 |
| November-16 | 7,265 | 0 | 0 | 0.0076 |
| December-16 | 7,632 | 0 | 0 | 0.0076 |

The Air Floatation Dryer demonstrated compliance with the BACT limit of 0.0164 lb PM per million BTU.

**Condition 06.5(B)**
**Equip IDs 4120 & 4130** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas, kerosene, and propane for the Hot Oil Heating System (4130) are shown for condition 5C.06.3(B) above. The Infrared Dryer (4120) was removed from service at the end of May 2013.

**Condition 06.5(C)**
**Equip ID 4610** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas, kerosene, and propane for the No. 2 Coater Dryer (4610) are shown for condition 5C.06.3(C) above.

**Condition 06.5(D)**
**Equip ID 9900** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas and propane for the Paper Machine Make Up Air Units (4610) are shown for condition 5C.06.3(D) above.

**Condition 06.6(A)**
**Equip ID 4610** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas, kerosene, and propane for the No. 2 Coater Dryer (4610) are shown for condition 5C.06.3(C) above.

**Condition 06.6(B)**
**Equip ID 9900** **Reporting Frequency: Semi-Annually**

Monthly fuel usages of natural gas and propane for the Paper Machine Make Up Air Units (4610) are shown for condition 5C.06.3(D) above.

## Title V Permit ID 07 – Chemical Recovery

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 07.1(A) | 2400, 2402, 2500, 5100 | No | N/A | N/A |
| 07.1(B) | 2515, 2520, 5115, 5120, 2700, 2701, 2702, & 2703 | N/A | N/A | Refers to FW.4 |
| 07.1(C) | 2700 & 2701 (2725C) | No | N/A | N/A |
| 07.2(A) | 2505 & 2723 | Yes | Semi-annual | See note below. |
| 07.2(B) | 2510 & 5110 (2511C) | Yes | Semi-annual | See note below. |
| 07.3 | 5105 | Yes | Semi-annual | See note below. |
| 07.4(A) | 2505 | N/A | N/A | Refers to MACT conditions |
| 07.4(B1) | 2505 | N/A | N/A | Refers to MACT conditions |
| 07.4(B2) | 2505 | No | N/A | N/A |
| 07.5(A) | 2510 | N/A | N/A | Refers to MACT conditions |
| 07.5(B1) | 2510 | N/A | N/A | Refers to MACT conditions |
| 07.5(B2) | 2510 | No | N/A | N/A |
| 07.6(A) | 5105 | N/A | N/A | Refers to MACT conditions |
| 07.6(B1) | 5105 | N/A | N/A | Refers to MACT conditions |
| 07.6(B2) | 5105 | No | N/A | N/A |
| 07.6(C) | 5105 | N/A | N/A | Refers to FW.3. |
| 07.7(A) | 5110 | N/A | N/A | Refers to MACT conditions. |
| 07.7(B) | 5110 | N/A | N/A | Refers to MACT conditions. |
| 07.8(A) | 2723 | N/A | N/A | Refers to MACT conditions. |
| 07.8(B) | 2723 | N/A | N/A | Refers to MACT |

## 2016 Fourth Quarter CEM Report Summaries

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| | | | | conditions. |
| 07.8(C1) | 2723 | N/A | N/A | Refers to MACT conditions. |
| 07.9(A) | 2725C | No | N/A | N/A |
| 07.9(B) | 2726C & 2724C | No | N/A | N/A |
| 07.9(C) | 2724C, 2725C & 2726C | Yes | Semi-annual | See note below. |
| 07.10(A) | 5105 & 2723 | No | N/A | N/A |
| 07.10(B) | 2723 | No | N/A | N/A |
| 07.10(C) | 5105 | No | N/A | N/A |
| 07.10(D1) | 2723 | N/A | N/A | Refers to FW.2. |
| 07.10(D2) | 2723 | N/A | N/A | Refers to FW.3. |
| 07.10(D3) | 5105 | N/A | N/A | Refers to FW.3. |
| 07.11(A) | 5105 & 2723 | No | N/A | N/A |
| 07.11(B1) | 2723 | No | N/A | N/A |
| 07.11(B2) | 5105 | No | N/A | N/A |
| 07.11(C1) | 2723 | N/A | N/A | Refers to FW.2. |
| 07.11(C2) | 2723 | N/A | N/A | Refers to FW.3. |
| 07.11(C3) | 5105 | N/A | N/A | Refers to FW.3. |
| 07.12(A) | 5105 & 2723 | No | N/A | N/A |
| 07.12(B) | 5105 & 2723 | Yes | Semi-annual | See note below. |
| 07.12(C1) | 2723 | N/A | N/A | Refers to FW.2. |
| 07.12(C2) | 2723 | N/A | N/A | Refers to FW.3. |
| 07.12(C3) | 5105 | N/A | N/A | Refers to FW.3. |
| 07.13(A) | 5260 (5260C) | N/A | N/A | Refers to 02.2. |
| 07.13(B) | 2400, 2500, 5100, & 5260 | N/A | N/A | Refers to 08.7. |
| 07.14 | 2505 | Yes | Semi-annual | See note below. |
| 07.15 | 5105 | Yes | Semi-annual | See note below. |
| 07.16(A) | 2510 | Yes | Semi-annual | See note below. |
| 07.16(B) | 5110 | Yes | Semi-annual | See note below. |
| 07.17(A) | 2723 | Yes | Semi-annual | See note below. |
| 07.17(B1) | 2723 | N/A | N/A | Refers to FW.2. |
| 07.17(B2) | 2723 | N/A | N/A | Refers to FW.3. |
| 07.18(A1) | 2723 | N/A | N/A | See note below. |
| 07.18(A2) | 2723 | N/A | N/A | Refers to FW.3. |
| 07.19 | 2400, 2700, 2701, 2702, 2723, 5105, 5110, & 5115 | N/A | N/A | Refers to FW.1. |
| 07.20 & 0.7.21 | 2400, 2500, & 5100 | N/A | N/A | Refer to MACT conditions. |
| 07.22 | 2505, 2110, 2723, 5105, & 5110 | N/A | N/A | Refer to MACT conditions. |

**Condition 07.2(A)**
**Equip IDs 2505 & 2723** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5C.07.2.

- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

There was a single three-hour opacity episode for the No. 2 Lime Kiln (ID 2723) during the semi-annual reporting period.

There were no three-hour opacity episodes for the No. 2 Recovery Furnace (ID 2505) during the semi-annual reporting period.

A summary is listed below for the continuous opacity monitoring downtime and excess emissions for the reporting period.

**Continuous Opacity Monitoring – No. 2 Recovery Furnace**

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 0.91 % | 3.46 % | 2.13 % |
| **Excess Emission** | 0.03 % | 0.21 % | 0.12 % |
| **Overall Compliance** | 99.06 % | 96.33 % | 97.75 % |

**Continuous Opacity Monitoring – No. 2 Lime Kiln**

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 0.30 % | 1.25 % | 0.78 % |
| **Excess Emission** | 0.10 % | 0.52 % | 0.31 % |
| **Overall Compliance** | 99.61 % | 98.23 % | 98.90 % |

**Condition 07.2(B)**
**Control Device ID 2511C** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5C.07.2.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there were two related instances of deviation from the scrubber monitoring ranges. See the enclosed log for details.

**Condition 07.3**
**Equip ID 5105** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.3.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

## 2016 Fourth Quarter CEM Report Summaries

There were no three-hour opacity episodes during the semi-annual reporting period.

A summary is listed below for the continuous opacity monitoring downtime and excess emissions for the reporting period.

**Continuous Opacity Monitoring – No. 3 Recovery Furnace**

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 0.13 % | 0.09 % | 0.11 % |
| **Excess Emission** | 0.06 % | 0.00 % | 0.03 % |
| **Overall Compliance** | 99.80 % | 99.91 % | 99.86 % |

**Condition 07.9(C)**
**Control Device IDs 2724C, 2725C, & 2726C** **Reporting Frequency: Semi-Annually**

For the Slaker Scrubber (ID 2725C), there were no variations of a surrogate monitoring parameter during the semi-annual period.

No abnormal dust emissions were noted on the daily logs for the lime silos baghouses (IDs 2724C and 2726C) during the semi-annual reporting period.

## 2016 Fourth Quarter CEM Report Summaries

**Condition 07.12(B)**
**Equip IDs 2723 & 5105** **Reporting Frequency: Semi-Annually**

The lime kiln modifications authorized by Construction Permit 2440-0005-DA have not occurred; therefore the requirements of this condition applicable to the No. 2 Lime Kiln (ID 2723) are not yet applicable.

The required data is recorded for the No. 3 Recovery Furnace (ID 5105). A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

### Continuous NOx Emissions Monitoring – No. 3 Recovery Furnace

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 2.04% | 2.48 % | 2.26 % |
| **Excess Emission** | 0.00 % | 0.00 % | 0.00 % |
| **Overall Compliance** | 97.96 % | 97.52 % | 97.74 % |

**Condition 07.14**
**Equip ID 2505** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.14.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

### Continuous Emissions Monitoring – No. 2 Recovery Furnace

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 0.68 % | 0.86 % | 0.77 % |
| **Excess Emission** | 0.00 % | 0.00 % | 0.00 % |
| **Overall Compliance** | 99.32 % | 99.14 % | 99.23 % |

## 2016 Fourth Quarter CEM Report Summaries

**Condition 07.15**
**Equip ID 5105** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.15.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period. See the enclosed log for details.

### Continuous Emissions Monitoring – No. 3 Recovery Furnace

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 2.18 % | 1.95 % | 2.06 % |
| **Excess Emission** | 0.00 % | 0.00 % | 0.00 % |
| **Overall Compliance** | 97.82 % | 98.05 % | 97.94 % |

**Condition 07.16(A)**
**Equip ID 2510** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.16.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation within surrogate monitoring parameters
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there were two related instances of scrubber monitoring range deviation.

**Condition 07.16(B)**
**Equip ID 5110** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.16.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation within surrogate monitoring parameters.
- Cause and corrective actions are detailed on the enclosed logs.

During the reporting period, there were two related instances of scrubber monitoring range deviation.

**Condition 07.17(A)**
**Equip ID 2723** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.07.17.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous TRS data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous emissions monitoring downtime and excess emissions for the reporting period.

## Continuous Emissions Monitoring – No. 2 Lime Kiln

| | 3rd Quarter | 4th Quarter | Semi-Annual Period |
|---|---|---|---|
| **Monitor Downtime** | 1.08 % | 3.30 % | 2.25 % |
| **Excess Emission** | 0.00 % | 0.00 % | 0.00 % |
| **Overall Compliance** | 98.92 % | 96.70 % | 97.75 % |

### Condition 07.18(A1)
### Equip ID 2723

The lime kiln modifications authorized by Construction Permit 2440-0005-DA have not occurred; therefore the requirements of this condition applicable to the No. 2 Lime Kiln (ID 2723) are not yet applicable. If/when the modifications occur, Facility-Wide condition FW.2 will apply.

## 2016 Fourth Quarter CEM Report Summaries

## Title V Permit ID 08 – Utilities

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 08.1(A) | 2550 | N/A | N/A | Refers to FW.4. |
| 08.1(B) | 2605 & 3705 | Yes | Quarterly | See note below. |
| 08.2(A) | 2550 | N/A | N/A | Refers to FW.4. |
| 08.2(B1) | 2605 & 3705 | Yes | Semi-annual | See note below. |
| 08.2(B2) | 2605 & 3705 | No | N/A | N/A |
| 08.2(C) | 2605 & 3705 | No | N/A | N/A |
| 08.3(A) | 2550 | No | N/A | N/A |
| 08.3(B) | 2605 & 3705 | No | N/A | N/A |
| 08.4 | 2550 | Yes | Quarterly | Submitted under separate cover. |
| 08.5 | 2605 & 3705 | Yes | Annual | Submitted under separate cover. |
| 08.6 | 2605 & 3705 | Yes | Semi-annual | See note below. |
| 08.7 | 2605, 3705, 5260, 5270, & 9820 | Yes | Semi-annual | See note below. |
| 08.8 | 2605, 3705, 5260, 5270, & 9820 | N/A | N/A | Refers to MACT conditions. |

**Condition 08.1(B)**
**Equip IDs 2605 & 3705** **Reporting Frequency: Quarterly**

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.1.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous opacity monitoring monitor downtime and excess emissions for the quarter. The precipitator bypass minutes are also listed below.

## 2016 Fourth Quarter CEM Report Summaries

### Continuous Opacity Monitoring

| | No. 1 Combination Boiler (ID 2605) | No. 2 Combination Boiler (ID 3705) |
|---|---|---|
| **Monitor Downtime** | 0.18 % | 0.22 % |
| **Excess Emissions** | 0.01 % | 0.08 % |
| **Overall Compliance** | 99.81 % | 99.70 % |
| **Precipitator Bypass** | 83 minutes | 0 minutes |

There were no periods of 3-hour opacity episodes during the quarter for either boiler.

There were no trips of the precipitator for No. 1 Combination Boiler, and two brief trips of the precipitator for No. 2 Combination Boiler within the quarter. Specific details are on the enclosed logs for each boiler.

**Condition 08.2(B1)**
**Equip IDs 2605 & 3705** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting form 3650, the following information is being included with this report pursuant to DHEC form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.2.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is operation and recording of continuous opacity data and monitor downtime.
- Cause and corrective actions are detailed on the enclosed logs.

A summary is listed below for the continuous opacity monitoring monitor downtime and excess emissions for the semi-annual reporting period. The precipitator bypass minutes are also listed below.

### Continuous Opacity Monitoring

| | No. 1 Combination Boiler (ID 2605) | No. 2 Combination Boiler (ID 3705) |
|---|---|---|
| **Monitor Downtime** | 0.35 % | 0.31 % |
| **Excess Emissions** | 0.01 % | 0.05 % |
| **Overall Compliance** | 99.65 % | 99.63 % |
| **Precipitator Bypass** | 752 minutes | 471 minutes |

There were no trips of the precipitator for No. 1 Combination Boiler and only two brief trips of the precipitator for No. 2 Combination Boiler within the semi-annual period. Specific details are on the enclosed logs for each boiler.

**Condition 08.6**
**Equip IDs 2605 & 3705** **Reporting Frequency: Semi-Annually**

Tire-derived fuel (TDF) rate records for the semi-annual reporting period indicate that there were no rates above the 1.5-TPH limit.

**Condition 08.7**
**Equip IDs 2605, 3705, 5260, 5270, & 9820** **Reporting Frequency: Semi-Annually**

For the purposes of using this report as a cross reference when completing DHEC annual reporting Form 3650, the following information is being included with this report pursuant to DHEC Form 3650:

- The specific permit condition for which exceptions are being noted is 5.C.08.7.
- Exceptions descriptions are detailed on the enclosed logs along with dates and times.
- The basis for compliance determinations is positive operation of flame failure system and vent valve position.
- Cause and corrective actions are detailed on the enclosed logs.

During the semi-annual period, there were 27 vents of the low volume high concentration (LVHC) gas system, and 11 vents of the high volume low concentration (HVLC) gas system, due to a variety of causes.

Note: Reports required under 40 CFR Part 60 Subpart S and General Provisions are being submitted separately to the Air Toxics Group. A copy is attached to this report for your review.

## Title V Permit ID 09 – Waste Treatment

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 09.1(A) | 9800 & 9801 | No | N/A | N/A |
| 09.1(B) | 2902 through 2905 | N/A | N/A | Refers to FW.4 |
| 09.2 | 2902 through 2905 | No | N/A | N/A |
| 09.3 | 2903 | Yes | Semi-annual | See note below. |
| 09.4 | 9801 | N/A | N/A | Refers to 08.7 |
| 09.5 | 9801 | N/A | N/A | Refers to MACT conditions |

**Condition 09.3**
**Equip ID 2903** **Reporting Frequency: Semi-Annually**

Monthly records indicate the No. 1 Holding Basin Pump No. 2 did not operate more than 7000 hours per year.

## 2016 Fourth Quarter CEM Report Summaries

### Title V Permit ID 10 – Storage Tanks

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 10.1 | 1100 | No | N/A | N/A |
| 10.2 | 1100 | No | N/A | N/A |

### Title V Permit ID 11 – Miscellaneous

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| 11.1 | 2900 & 1000 | N/A | N/A | Refer to FW.4 |

### Facility Wide Conditions

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| FW.1 | All | No | N/A | N/A |
| FW.2 | 2723 | Yes | Semi-annual | See note below. |
| FW.3 | 2723 & 5105 | No | N/A | N/A |
| FW.4 | 1300, 2000, 2005, 4600, 4605, 4100, 4110, 9700, 9701A, 9701B, 9702, 9703, 9704, 2000, 4610, 4120, 4130, 9900, 2515, 2520, 5115, 5120, 2700, 2701, 2702, 2703, 2550, 2902, 2903, 2904, 2905, 2900, & 1100 | Yes | Semi-annual | See note below. |
| FW.5 | 5210, 5240, 2400, 5100, 5260, 5260C, 2605, & 3705 | Yes | Semi-annual | See notes below. |
| FW.6 | | | | |
| FW.7 | | No | N/A | N/A |

**Condition FW.2**
**Equip ID 2723** **Reporting Frequency: Semi-Annually**

Lime Kiln production rates are shown below:

| Month | Kiln Production TPD | 12- Month Rolling Avg |
|---|---|---|
| June-15 | 390 | 336 |
| July-15 | 379 | 336 |
| August-15 | 386 | 340 |
| September-15 | 317 | 335 |
| October-15 | 344 | 333 |
| November-15 | 346 | 334 |
| December-15 | 316 | 333 |
| January-16 | 299 | 331 |
| February-16 | 357 | 335 |
| March-16 | 239 | 342 |
| April-16 | 377 | 345 |
| May-16 | 416 | 347 |
| June-16 | 346 | 344 |
| July-16 | 248 | 333 |
| August-16 | 347 | 329 |
| September-16 | 394 | 336 |
| October-16 | 401 | 341 |
| November-16 | 299 | 337 |
| December-16 | 287 | 334 |

The 12-month rolling sum for lime kiln operation did not exceed the 465-ton per day limit during the reporting period.

**Condition FW.4**
**Equip IDs 1300, 2000, 2005, 4600, 4605, 4100, 4110, 9700, 9701A, 9701B, 9702, 9703, 9704, 2000, 4610, 4120, 4130, 9900, 2515, 2520, 5115, 5120, 2700, 2701, 2702, 2703, 2550, 2902, 2903, 2904, 2905, 2900, & 1100** **Reporting Frequency: Semi-Annually**

Visual emissions inspections were conducted on the sources listed below and the frequencies indicated. There were no incidences of abnormal VE results during the semi-annual reporting period.

**Condition FW.5(A1)**
**Equip ID 5260C** **Reporting Frequency: Semi-Annually**

Records of liquid flow and liquid pH are maintained. There were no incidences of variances from established parameters during the reporting period.

**Condition FW.5(A2)**
**Equip IDs 5210, 5240, 2400, 5100,**
**5260, 5260C, 2605, & 3705** **Reporting Frequency: Semi-Annually**

Records of the combination boiler that is combusting NCG streams, the daily bark fired in each combination boiler, and the daily Kraft pulp production are maintained. The daily bark/Kraft pulp production ratio and the 30-day rolling average ratio are calculated. There were no incidences of variances from the minimum level during the reporting period.

**Condition FW.5(C)**
**Equip IDs 5210, 5240, 2400, 5100,**
**5260, 5260C, 2605, & 3705** **Reporting Frequency: Semi-Annually**

Records of monthly and 12-month rolling sums of $SO_2$ emissions are maintained. There were no incidences of monthly 12-month sums above the annual $SO_2$ PSD BACT limit during the reporting period.

**Condition FW.6**
**Equip IDs 5210, 5240, 2400, 5100,**
**5260, 5260C, 2605, & 3705** **Reporting Frequency: Semi-Annually**

Records of monthly and 12-month rolling average of unbleached pulp production are maintained. There were no incidences of rolling 12-month averages above the production limit during the reporting period.

## 2016 Fourth Quarter CEM Report Summaries

## Conditions for MACT Affected Sources

| Condition | Equip ID | Reporting Required? | Reporting Frequency | Comment |
|---|---|---|---|---|
| MACT.1(C) | 5210, 5220, 5230, 5240, 5250, 2400, 2500, 5100, 2605, & 3705 | Yes | Semi-annual | See note below. |
| MACT.2(A) | 5210, 5220, 2400, 2500, 5100, 9800, & 9801 | Yes | Semi-annual | See note below. |
| MACT.3(A) | 5300 | Yes | Semi-annual | See note below. |
| MACT.4 | 5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 5100, 2605, 3705, 9800, & 9801 | No | N/A | N/A |
| MACT.5(A2) | 2505, 2723, & 5105 | Yes | Quarterly | See note below. |
| MACT.5(C) | 2510 & 5110 | Yes | Quarterly | See note below. |
| MACT.6 | 2010 & 4610 | Yes | Semi-annual | See note below. |
| MACT.7 | 5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 2505, 2510, 2723, 5100, 5105, 5110, 9800, & 9801 | No | N/A | N/A |
| MACT.8, MACT.9, & MACT.10 | 5210, 5220, 5230, 5240, 5250, 5300, 2400, 2500, 2505, 2510, 2723, 5100, 5105, 5110, 2605, 3705, 9800, & 9801 | No | N/A | N/A |

## 2016 Fourth Quarter CEM Report Summaries

**Condition MACT.1(C)**
**Equip IDs 5210, 5220, 5230, 5240, 5250**
**2400, 2500, 5100, 2605, & 3705** **Reporting Frequency: Semi-Annually**

Excess emissions and CMS downtime were less than 1% and 5% respectively for all systems. See the attached MACT I report for details.

**Condition MACT.2(A)**
**Equip IDs 5210, 5220, 2400, 2500,**
**5100, 9800, & 9801** **Reporting Frequency: Semi-Annually**

Condensate Collection and Treatment System excess emissions were greater than 1% of the semi-annual period operating time. CMS downtime was less than 5% of operating time. See the attached MACT I report for details.

**Condition MACT.3(A)**
**Equip ID 5300** **Reporting Frequency: Semi-Annually**

Excess emissions and CMS downtime were less than 1% and 5% respectively for all systems. See the attached MACT I report for details.

**Condition MACT.5(A2)**
**Equip IDs 2505, 2723, & 5105** **Reporting Frequency: Quarterly**

The record of exceedances is provided in the attached MACT II report.

**Condition MACT.5(C)**
**Equip IDs 2510 & 5110** **Reporting Frequency: Quarterly**

The record of exceedances is provided in the attached MACT II report.

**Condition MACT.6**
**Equip IDs 2010 & 4610** **Reporting Frequency: Semi-Annually**

See the attached POWC MACT report.

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

**ID 5300C** **TV**

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Kraft Process - Bleach Plant Scrubber

**Report Period 7/1/16 to 12/31/16**

Permit Conditions: 5.C.03.1 & MACT.3(A)
This report is for variations outside of surrogate monitoring parameters or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | Parameter | Duration (Minutes) | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|
| | | | pH, Flow, delta P | | | |
| There were no excursion events or downtime during the month of July 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of August 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of September 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of November 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | |
| | | | | | | |
| | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

**ID 1790** **TV**

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Chlorine Dioxide Scrubber

**Report Period 7/1/16 to 12/31/16**

Permit Condition: 04.1
This report is for variations outside of surrogate monitoring parameters or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | Parameter | Duration (Minutes) | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|
| | | | pH, Flow, delta P | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of July 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of August 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of September 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of November 2016. | | | | | | |
| | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | |
| | | | | | | |
| | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

ID 2505 TV

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Recovery Boiler No. 2

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| | | | | | | | | | |
| 1 | 7/18/2016 | 4:25 AM | - | x | | | 5 | Out of alignment | Realigned monitor |
| 2 | 7/19/2016 | 7:28 PM | - | x | | | 8 | Out of alignment | Realigned monitor |
| 3 | 7/19/2016 | 11:27 PM | - | x | | | 8 | Out of alignment | Realigned monitor |
| 4 | 7/24/2016 | 4:17 AM | - | x | | | 9 | Out of alignment | Realigned monitor |
| 5 | 7/27/2016 | 7:48 AM | - | x | | | 22 | Out of alignment | Realigned monitor |
| 6 | 7/31/2016 | 11:45 AM | - | x | | | 25 | Out of alignment | Realigned monitor |
| | | | | | | | | | |
| 1 | 8/5/2016 | 3:55 PM | - | x | | | 5 | Out of alignment | Realigned monitor |
| 2 | 8/6/2016 | 11:36 AM | - | x | | | 56 | Out of alignment | Realigned monitor |
| 3 | 8/6/2016 | 3:18 PM | - | x | | | 57 | Out of alignment | Realigned monitor |
| 4 | 8/8/2016 | 12:03 AM | - | x | | | 9 | Out of alignment | Realigned monitor |
| 5 | 8/9/2016 | 12:00 AM | - | x | | | 120 | Quarterly PM | Completed PM |
| 6 | 8/10/2016 | 2:00 AM | - | x | | | 20 | Purge failure alarm analyzer side | Cleaned filter |
| 7 | 8/14/2016 | 9:54 AM | - | x | | | 51 | Out of alignment | Realigned monitor |
| 8 | 8/14/2016 | 5:12 PM | 36 | x | | | 6 | North outlet field tripped | Isolated field, pulled liquor, repaired field |
| 9 | 8/14/2016 | 5:24 PM | 38 | x | | | 12 | North outlet field tripped | Isolated field, pulled liquor, repaired field |
| 10 | 8/14/2016 | 10:00 PM | avg>20% | x | | | 96 | North outlet field tripped | Isolated field, pulled liquor, repaired field |
| 11 | 8/15/2016 | 12:24 AM | 36 | x | | | 6 | North outlet field tripped | Isolated field, pulled liquor, repaired field |
| 12 | 8/15/2016 | 12:48 AM | 38 | x | | | 6 | North outlet field tripped | Isolated field, pulled liquor, repaired field |
| 13 | 8/15/2016 | 12:00 AM | avg>20% | x | | | 222 | North outlet field tripped | Isolated field, pulled liquor, repaired field |
| 14 | 8/15/2016 | 8:54 AM | - | x | | | 156 | Alignment off | Replaced flange and adjusted |
| 15 | 8/15/2016 | 4:24 PM | - | x | | | 66 | Out of alignment | Realigned monitor |
| 16 | 8/19/2016 | 1:24 PM | - | x | | | 41 | Zero cal fault | Completed on stack cal |
| 17 | 8/21/2016 | 11:18 AM | - | x | | | 22 | Out of alignment | Realigned monitor |
| 18 | 8/24/2016 | 2:45 AM | - | x | | | 6 | Out of alignment | Realigned monitor |
| 19 | 8/24/2016 | 11:10 AM | - | x | | | 20 | Out of alignment | Realigned monitor |
| 20 | 8/26/2016 | 1:42 AM | - | x | | | 13 | Out of alignment | Realigned monitor |
| 21 | 8/29/2016 | 5:45 AM | - | x | | | 15 | Out of alignment | Realigned monitor |
| 22 | 8/30/2016 | 1:06 PM | - | x | | | 54 | Out of alignment | Realigned monitor |
| 23 | 8/30/2016 | 7:18 PM | - | x | | | 42 | Out of alignment | Realigned monitor |
| 24 | 8/30/2016 | 11:24 PM | - | x | | | 156 | Out of alignment | Realigned monitor |
| | | | | | | | | | |
| 1 | 9/2/2016 | 8:40 AM | - | x | | | 20 | Out of alignment | Realigned monitor |
| 2 | 9/2/2016 | 12:54 PM | 75 | x | | | 12 | North outlet field down (grounded) | Called maintenance, returned field |
| 3 | 9/3/2016 | 8:12 AM | - | x | | | 42 | Out of alignment | Realigned monitor |
| 4 | 9/3/2016 | 2:06 PM | - | x | | | 24 | Out of alignment | Realigned monitor |
| 5 | 9/13/2016 | 8:00 AM | - | x | | | 15 | Out of alignment | Realigned monitor |
| 6 | 9/13/2016 | 2:30 PM | - | x | | | 15 | Out of alignment | Realigned monitor |
| 7 | 9/20/2016 | 8:48 PM | - | x | | | 18 | Out of alignment | Realigned monitor |
| 8 | 9/23/2016 | 8:43 AM | - | x | | | 81 | Out of alignment | Realigned monitor |
| | | | | | | | | | |
| 1 | 10/8/2016 | 4:00 PM | 73 | x | | | 12 | Start up of Boiler | Completed Start up |
| 2 | 10/8/2016 | 5:00 PM | 66 | x | | | 12 | Start up of Boiler | Completed Start up |
| 3 | 10/8/2016 | 5:18 PM | 64 | x | | | 12 | Start up of Boiler | Completed Start up |
| 4 | 10/8/2016 | 7:18 PM | 39 | x | | | 6 | Start up of Boiler | Completed Start up |
| 5 | 10/9/2016 | 9:00 AM | - | x | | | 84 | Monitor out of alignment | Align monitor |
| 6 | 10/22/2016 | 4:00 AM | - | x | | | 15 | Monitor out of alignment | Align monitor |
| 7 | 10/22/2016 | 2:17 PM | - | x | | | 100 | Monitor out of alignment | Align monitor |
| 8 | 10/22/2016 | 10:50 PM | - | x | | | 10 | Monitor out of alignment | Align monitor |
| 9 | 10/23/2016 | 4:20 PM | - | x | | | 20 | Monitor out of alignment | Align monitor |
| 10 | 10/24/2016 | 7:42 AM | - | x | | | 18 | Monitor out of alignment | Align monitor |
| 11 | 10/24/2016 | 11:55 AM | - | x | | | 255 | Monitor out of alignment | Align monitor |

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

ID 2505

TV

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Recovery Boiler No. 2

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.07.2(A), 5.C.14, & MACT.5(A2)
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| 12 | 10/25/2016 | 3:55 PM | - | x | | | 15 | Monitor out of alignment | Align monitor |
| 13 | 10/26/2016 | 9:00 AM | - | x | | | 7 | Monitor out of alignment | Align monitor |
| 14 | 10/27/2016 | 2:48 AM | - | x | | | 22 | Monitor out of alignment | Align monitor |
| 15 | 10/27/2016 | 3:00 PM | - | x | | | 10 | Monitor out of alignment | Align monitor |
| 16 | 10/28/2016 | 7:42 AM | 40 | x | | | 6 | EP field work, isolated north side of EP | Pulled liquor, reduced air, completed work |
| 17 | 10/28/2016 | 8:12 AM | 64 | x | | | 54 | EP field work, isolated north side of EP | Pulled liquor, reduced air, completed work |
| 18 | 10/28/2016 | 9:12 AM | 37 | x | | | 12 | EP field work, isolated north side of EP | Pulled liquor, reduced air, completed work |
| 19 | 10/28/2016 | 10:30 AM | 55 | x | | | 30 | EP field work, isolated north side of EP | Pulled liquor, reduced air, completed work |
| 20 | 10/28/2016 | 11:12 AM | 36 | x | | | 12 | EP field work, isolated north side of EP | Pulled liquor, reduced air, completed work |
| 21 | 10/28/2016 | 9:24 AM | avg>20% | x | | | 414 | EP field work, isolated north side of EP | Pulled liquor, reduced air, completed work |
| 22 | 10/29/2016 | 9:12 AM | - | x | | | 23 | Monitor out of alignment | Align monitor |
| 23 | 10/31/2016 | 9:50 AM | - | x | | | 25 | Monitor out of alignment | Align monitor |
| 24 | 10/31/2016 | 12:00 PM | - | x | | | 35 | Monitor out of alignment | Align monitor |
| 25 | 10/31/2016 | 8:18 AM | 37 | x | | | 6 | Bypass southside of EP for repair, lost north outlet field | Reduced liquor, put oil guns in, reduced air |
| 26 | 10/31/2016 | 9:12 AM | 68 | x | | | 36 | Bypass southside of EP for repair, lost north outlet field | Reduced liquor, put oil guns in, reduced air |
| 27 | 10/31/2016 | 9:00 AM | avg>20% | x | | | 186 | Bypass southside of EP for repair, lost north outlet field | Reduced liquor, put oil guns in, reduced air |
| | | | | | | | | | |
| 1 | 11/1/2016 | 6:30 AM | - | x | | | 105 | Failed cal / Monitor out of alignment | Quarterly PM / align monitor |
| 2 | 11/1/2016 | 9:00 AM | - | x | | | 135 | Quarterly PM | Completed PM |
| 3 | 11/7/2016 | 11:30 AM | avg>20% | x | | | 102 | EP outleft fields tripped | Bypassed north side, called maintenance to repair |
| 4 | 11/8/2016 | 11:18 AM | - | x | | | 27 | Monitor out of alignment | Align monitor |
| 5 | 11/8/2016 | 2:48 PM | - | x | | | 32 | Monitor out of alignment | Align monitor |
| 6 | 11/8/2016 | 1:36 PM | avg>20% | x | | | 102 | EP field work | Working on EP fields, cut liquor |
| 7 | 11/9/2016 | 4:30 AM | - | x | | | 75 | Monitor out of alignment | Align monitor |
| 8 | 11/23/2016 | 11:18 PM | 38 | x | | | 6 | Opacity spiked up | Returned to normal |
| 9 | 11/24/2016 | 5:45 AM | - | x | | | 1440 | Failed cal, zero span | Replaced filters and ran cal, OK |
| 10 | 11/25/2016 | 5:45 AM | - | x | | | 1440 | Failed cal, zero span | Replaced filters and ran cal, OK |
| 11 | 11/28/2016 | 9:30 AM | - | x | | | 270 | Morning cal zero span high | Replaced filters and ran cal, OK |
| | | | | | | | | | |
| 1 | 12/2/2016 | 12:24 PM | 59 | x | | | 54 | Working on rotary valve south side EP, north side middle EP field grounded out | Pulled liquor guns |
| 2 | 12/2/2016 | 12:30 PM | avg>20% | x | | | 84 | Working on rotary valve south side EP, north side middle EP field grounded out | Pulled liquor guns |
| 3 | 12/5/2016 | 6:15 PM | - | x | | | 10 | Monitor out of alignment | Aligned optical head |
| 4 | 12/5/2016 | 12:36 AM | - | x | | | 18 | Monitor out of alignment | Aligned optical head |
| 5 | 12/6/2016 | 5:38 PM | - | x | | | 10 | Monitor out of alignment | Aligned optical head |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

ID 2723 TV

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Lime Kiln No. 2

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.07.2(A), 5.C.07.12(B), 5.C.17(A), & MACT.5(A2)
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| 1 | 7/8/16 | 11:42 AM | 75 | x | | | 12 | EP tripped when lump crusher went down | Called maintenance, checked EP, put back on |
| 2 | 7/9/16 | 3:42 PM | 22 | x | | | 6 | EP tripped | Reset EP |
| 3 | 7/14/16 | 8:06 AM | 95 | x | | | 12 | Control heater on gas analyzer tripped | Reset, OK |
| 4 | 7/14/16 | 2:42 PM | 59 | x | | | 12 | Control heater on gas analyzer tripped | Reset, OK, maintenance replaced controller |
| 5 | 7/17/16 | 9:12 AM | 96 | x | | | 48 | Control heater on gas analyzer malfunctioned | Called maintenance, bypassed EP, returned control heater to normal operation |
| 6 | 7/17/16 | 10:24 AM | avg>20% | x | | | 18 | Control heater on gas analyzer malfunctioned | Called maintenance, bypassed EP, returned control heater to normal operation |
| 1 | 8/6/16 | 7:00 AM | - | x | | | 270 | Failed daily calibration | Ran cal, OK |
| 2 | 8/7/16 | 8:45 AM | - | x | | | 35 | Failed daily calibration | Ran cal, OK |
| 3 | 8/11/16 | 3:00 PM | - | x | | | 42 | Quarterly PM | Completed PM |
| 1 | 9/26/16 | 12:30 PM | 72 | x | | | 18 | EP fields tripped | Reset fields |
| 2 | 9/30/16 | 2:38 AM | 65 | x | | | 6 | EP fields tripped | Gas analyzer spiked, fields back on |
| 1 | 10/3/16 | 4:54 AM | 61 | x | | | 6 | EP fields tripped | Gas analyzer spiked, fields back on |
| 2 | 10/3/16 | 2:06 PM | 31 | x | | | 6 | EP fields tripped | I/M working on gas analyzer tripped fields, fields back on |
| 3 | 10/6/16 | 12:30 PM | 24 | x | | | 6 | Unknown cause | N/A |
| 4 | 10/13/16 | 1:48 PM | 61 | x | | | 30 | EP fields tripped | Took fire out of kiln, gas analyzer issues |
| 5 | 10/16/16 | 6:40 AM | - | x | | | 1440 | Failed morning calibration | N/A |
| 1 | 11/3/16 | 10:00 AM | - | x | | | 70 | Quarterly PM | Completed PM |
| 2 | 11/16/16 | 12:40 PM | - | x | | | 8 | Weekly monitor check | Cleaned window |
| 3 | 11/28/16 | 10:48 AM | 81 | x | | | 18 | E/I repairing pressure switch on lime kiln | Completed repair, opacity dropped back down |
| 1 | 12/9/16 | 10:00 AM | 41 | x | | | 12 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 2 | 12/9/16 | 11:00 AM | 89 | x | | | 96 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 3 | 12/9/16 | 12:42 PM | 88 | x | | | 54 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 4 | 12/9/16 | 2:00 PM | 88 | x | | | 102 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 5 | 12/9/16 | 7:30 PM | 41 | x | | | 12 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 6 | 12/9/16 | 8:00 PM | 22 | x | | | 6 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 7 | 12/9/16 | 11:24 AM | avg>20% | x | | | 402 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 8 | 12/11/16 | 11:24 AM | 80 | x | | | 228 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 9 | 12/11/16 | 11:42 AM | avg>20% | x | | | 246 | Cooling down lime kiln due to plug | Completed cool down, heated back up |
| 10 | 12/18/16 | 5:42 PM | 29 | x | | | 12 | Kiln down for prolonged time, starting up ID fan | Startup fan, return system to routine operation |
| 11 | 12/18/16 | 6:42 PM | 25 | x | | | 6 | Starting up kiln from extended down | Return kiln to operation |
| 12 | 12/19/16 | 9:54 PM | 21 | x | | | 12 | Introducing mud to kiln following extended down | Startup and stabilize process |
| 13 | 12/19/16 | 10:24 PM | 23 | x | | | 12 | Introducing mud to kiln following extended down | Startup and stabilize process |
| 14 | 12/19/16 | 10:42 PM | 23 | x | | | 12 | Introducing mud to kiln following extended down | Startup and stabilize process |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Smelt Dissolving Tank Vent Scrubber

**ID 2510, ID 5110 SIP, NSPS**

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.07.2; 07.16(A) & (B); 07.B.MACT.5
This report is for variations outside of surrogate monitoring parameters or permit exception conditions.

| Inci-dent No. | Date | Start Time (am or pm) | Parameter | Duration (Minutes) | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|
| | | | Pump Pressure, Flow, delta P | | | |
| 1 | 7/11/16 | 1:00 PM | Weak Wash Flow | 60 | Scrubber pump failed causing low flow | Replaced pump, returned to normal |
| 2 | 7/12/16 | 9:00 AM | Weak Wash Flow | 180 | Scrubber pump failed causing low flow | Replaced pump, returned to normal |
| There were no excursion events or downtime during the month of August 2016. | | | | | | |
| There were no excursion events or downtime during the month of September 2016. | | | | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | |
| There were no excursion events or downtime during the month of November 2016. | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

**ID 5105** **NSPS**

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Recovery Boiler No. 3

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.07.3, 5.C.07.12, 5.C.15, & MACT.5(A2)
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of July 2016. | | | | | | | | | |
| | | | | | | | | | |
| 1 | 8/10/16 | 3:15 PM | - | x | | | 170 | Quarterly PM | Completed PM |
| 2 | 8/16/16 | 8:48 AM | 66 | x | | | 12 | EP field tripped | Reduced liquor and air, shut down tert fan, pulled liquor gun, repaired field |
| 3 | 8/16/16 | 9:06 AM | 38 | x | | | 12 | EP field tripped | Reduced liquor and air, shut down tert fan, pulled liquor gun, repaired field |
| 4 | 8/16/16 | 8:48 AM | avg>20% | x | | | 66 | EP field tripped | Reduced liquor and air, shut down tert fan, pulled liquor gun, repaired field |
| 5 | 8/25/16 | 10:18 AM | 37 | x | | | 6 | Isolated EP field for maintenance | Reduced air, completed maintenance |
| 6 | 8/25/16 | 12:00 PM | 47 | x | | | 6 | Isolated EP field for maintenance | Reduced air, completed maintenance |
| 7 | 8/25/16 | 12:54 PM | 38 | x | | | 6 | Isolated EP field for maintenance | Reduced air, completed maintenance |
| 8 | 8/25/16 | 1:36 PM | 41 | x | | | 6 | Isolated EP field for maintenance | Reduced air, completed maintenance |
| 9 | 8/25/16 | 11:06 AM | avg>20% | x | | | 186 | Isolated EP field for maintenance | Reduced air, completed maintenance |
| 10 | 8/29/16 | 8:06 AM | avg>20% | x | | | 66 | Isolated EP field for maintenance | Pulled liquor guns, reduced air |
| 11 | 8/29/16 | 10:54 AM | avg>20% | x | | | 84 | Isolated EP field for maintenance | Pulled liquor guns, reduced air |
| | | | | | | | | | |
| 1 | 9/1/16 | 9:42 AM | 67 | x | | | 30 | EP fields tripped | Pulled liquor, cut air, called maintenance, repaired fields |
| 2 | 9/1/16 | 9:48 AM | avg>20% | x | | | 66 | EP fields tripped | Pulled liquor, cut air, called maintenance, repaired fields |
| 3 | 9/14/16 | 11:06 AM | avg>20% | x | | | 66 | West inlet field not loading | Increased liquor temp, increased liquor burn, decreased air flow |
| 4 | 9/27/16 | 11:18 PM | avg>20% | x | | | 60 | West field down | Reduced liquor burning and air to boiler |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | | | | |
| | | | | | | | | | |
| 1 | 11/2/16 | 2:36 PM | - | x | | | 111 | Quarterly PM | Completed PM |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | | | | |
| | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Recovery Boiler No. 3

**ID 5105** **NSPS**

**Report Period 7/1/16 to 12/31/16**

Permit Condition 5.C.07.12(B)
This report is for indicated excessive NOx (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | NOx | O2 | Duration (Minutes) | | |
| | | | | | | | | | |
| 1 | 7/2/16 | 12:30 PM | - | | x | | 90 | Failed morning cal for span srift | Ran initial cal. |
| | | | | | | | | | |
| 1 | 8/10/16 | 8:43 AM | - | | x | | 337 | Quarterly PM | Completed PM |
| 2 | 8/13/16 | 10:00 AM | - | | x | | 15 | Failed morning cal | Ran blink cal., OK |
| 3 | 8/18/16 | 6:25 AM | - | | x | | 120 | Failed morning cal | Calibrated, OK |
| 4 | 8/19/16 | 6:25 AM | - | | x | | 155 | Failed morning cal | Calibrated, OK |
| 5 | 8/25/16 | 6:25 AM | - | | x | | 155 | Failed morning cal | Calibrated, OK |
| 6 | 8/26/16 | 6:25 AM | - | | x | | 205 | Failed morning cal | Calibrated, OK |
| 7 | 8/28/16 | 8:30 AM | - | | x | | 80 | Failed morning cal, NOx span drift | Ran manual and init cal |
| 8 | 8/30/16 | 6:25 AM | - | | x | | 140 | Failed morning cal, NOx span drift | Ran initial cal |
| 9 | 8/31/16 | 6:25 AM | - | | x | | 445 | Failed morning cal, NOx span drift | Ran initial cal and PMT voltage adjustment |
| | | | | | | | | | |
| 1 | 9/1/16 | 6:25 AM | - | | x | | 260 | Failed morning cal, NOx span drift | Ran initial cal, changed ozonator, ran normal cal |
| 2 | 9/2/16 | 11:30 AM | - | | x | | 160 | NOx failing morning cal | Env 360 came in and inspected, replaced pinched line, cleaned capillary tubes, resolved cal gas mismatch |
| 3 | 9/19/16 | 6:30 AM | - | | x | | 240 | NOx failing morning cal | Ran initial cal |
| 4 | 9/28/16 | 6:30 AM | - | | x | | 180 | NOx failing morning cal | Ran initial cal |
| | | | | | | | | | |
| 1 | 10/5/16 | 7:00 AM | - | | x | | 400 | Failed morning cal | Ran initial and normal cal, OK |
| 2 | 10/12/16 | 7:00 AM | - | | x | | 180 | Failed morning cal | Ran initial and normal cal, OK |
| 3 | 10/13/16 | 7:00 AM | - | | x | | 480 | Failed morning cal | Ran initial and normal cal, OK |
| 4 | 10/15/16 | 6:30 AM | - | | x | | 75 | Failed morning cal | Ran initial and normal cal, OK |
| 5 | 10/16/16 | 6:30 AM | - | | x | | 450 | Failed morning cal | Repaired leak in sample line, adjusted PMT voltage, ran normal and initial cal |
| 6 | 10/17/16 | 6:30 AM | - | | x | | 390 | Failed morning cal | Adjusted PMT voltage, ran normal and iniital cal |
| 7 | 10/19/16 | 6:30 AM | - | | x | | 180 | Failed morning cal | Ran initial cal and normal cal |
| 8 | 10/19/16 | 2:30 PM | - | | x | | 210 | Multiple failed calibrations | Took unit out of service to replace NOx unit with spare, had difficulty so put previous unit back in |
| 9 | 10/20/16 | 6:30 AM | - | | x | | 510 | Failed morning cal | Replaced pump, changed NOx/TRS cal gas cylinder, adjusted PMT voltage, ran initial cal |
| 10 | 10/21/16 | 6:30 AM | - | | x | | 360 | Failed morning cal | Factory rep replaced eductor and probe filter, reset monitor slope, adjusted HVPS, adjusted lamp voltage, adjusted PMT voltage, ran normal and initial cal |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of November 2016. | | | | | | | | | |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | | | | |
| | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

**ID 2505** **SIP**

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Recovery Boiler No. 2

**Report Period 7/1/16 to 12/31/16**

Permit Condition 5.C.07.14
This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| | | | | | | | | | |
| 1 | 7/15/16 | 10:30 AM | - | | x | | 240 | Checked TRS system due to high readings | Checked system for leaks, unplugged exhaust line, ran initial cal. |
| 2 | 7/17/16 | 8:15 AM | - | | x | | 30 | Failed cal, -10.7 span drift | Ran cal., OK |
| 3 | 7/18/16 | 12:00 AM | - | | x | | 325 | TE Cooler alarm | Changed TE cooler and ran cal. |
| | | | | | | | | | |
| 1 | 8/7/16 | 6:30 AM | - | | x | | 15 | Failed cal. | Ran cal., OK |
| 2 | 8/9/16 | 9:20 AM | - | | x | | 293 | Quarterly PM | Completed PM |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of September 2016. | | | | | | | | | |
| | | | | | | | | | |
| 1 | 10/13/16 | 6:30 AM | - | | x | | 450 | Failed morning cal. | Ran initial and normal cal., OK |
| 2 | 10/14/16 | 6:30 AM | - | | x | | 525 | Failed calibration | Changed Citi cell. Ran initial and normal cal. |
| 3 | 10/29/16 | 8:00 AM | - | | x | | 20 | Production requested cal. Run | Ran cal, OK |
| | | | | | | | | | |
| 1 | 11/22/16 | 10:30 AM | - | | x | | 45 | TRS cal bottle low | Replaced bottle, ran cal, initial, and normal cal |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | | | | |
| | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Recovery Boiler No. 3

**ID 5105** **NSPS**

**Report Period 7/1/16 to 12/31/16**

Permit Condition 5.C.07.15
This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

| Inci-dent No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of July 2016. | | | | | | | | | |
| | | | | | | | | | |
| 1 | 8/7/16 | 6:45 PM | - | | x | | 30 | Failed cal. | Ran initial cal., OK |
| 2 | 8/10/16 | 8:43 AM | - | | x | | 337 | Quarterly PM | Completed PM |
| 3 | 8/13/16 | 10:30 AM | - | | x | | 15 | Failed morning cal. | Ran blink cal., OK |
| 4 | 8/18/16 | 7:00 AM | - | | x | | 2290 | Failed morning cal. | Tried to used spare montior, did not work; tried to repair mother board and processing board on current monitor, did not work; General Engineering on site with online monitor |
| | | | | | | | | | |
| 1 | 9/7/16 | 10:00 AM | - | | x | | 90 | Cal gas low | Changed cal. Gas bottle, ran cal. |
| | | | | | | | | | |
| 1 | 10/5/16 | 7:00 AM | - | | x | | 400 | Failed morning cal. | Ran initial and normal cal., OK |
| 2 | 10/12/16 | 7:00 AM | - | | x | | 180 | Failed morning cal. | Ran initial and normal cal., OK |
| 3 | 10/15/16 | 6:30 AM | - | | x | | 75 | Failed morning cal. | Ran initial and normal cal. OK |
| 4 | 10/16/16 | 6:30 AM | - | | x | | 450 | Failed morning cal. | Repaired leak in sample line. Ran normal and initial cal. |
| 5 | 10/17/16 | 6:30 AM | - | | x | | 390 | Failed morning cal. | Adjust PMT voltage. Ran initial and normal cal. |
| 6 | 10/19/16 | 6:30 AM | - | | x | | 180 | Failed morning cal. | Ran initial cal and normal cal |
| 7 | 10/20/16 | 6:30 AM | - | | x | | 510 | Failed morning cal. | Replaced pump, changed Nox/TRS cal gas cylinder, adjusted PMT voltage, ran initial cal |
| 8 | 10/21/16 | 6:30 AM | - | | x | | 360 | Failed morning cal. | Factory rep replaced eductor and probe filter. Reset monitor slope, adjusted HVPS, adjusted lamp voltage, adjusted PMT voltage, ran normal and initial cal. |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of November 2016. | | | | | | | | | |
| | | | | | | | | | |
| There were no excursion events or downtime during the month of December 2016. | | | | | | | | | |
| | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Lime Kiln No. 2

**ID 2723** **NSPS**

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.07.17(A)
This report is for indicated excessive TRS (reported in ppm), monitor downtime or repair (including O2 monitor), or permit condition exceptions.

| Inci-dent No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | |
| | | | | | | | | | |
| 1 | 7/4/16 | 12:15 AM | - | | x | | 15 | TRS Swinging | Ran test gases on unit, both gases OK, also passed morning cal., found nothing wrong |
| | | | | | | | | | |
| 1 | 8/3/16 | 6:20 AM | - | | x | | 124 | Failed calibration due to TRS span drift | Ran initial call, OK |
| 2 | 8/6/16 | 8:10 AM | - | | x | | 20 | Failed cal due to O2 span drift | Ran initial call, OK |
| 3 | 8/8/16 | 10:30 AM | - | | x | | 60 | Failed cal due to O2 span drift, water in instrument air lines | Drained water out of instrument air lines, ran normal cal and initial cal, OK |
| 4 | 8/9/16 | 6:31 AM | - | | x | | 15 | Failed cal due to O2 span drift | Ran initial call, OK |
| 5 | 8/9/16 | 2:00 PM | - | | x | | 330 | O2 span drift warning | Changed citi cell, replaced O-ring, Sample eductor jet plugged - cleaned out, ran initial cal, OK |
| 6 | 8/25/16 | 6:45 AM | - | | x | | 165 | Failed cal due to TRS span drift | Replaced air regulator, blew out probe and changed filter, ran int. and normal cal. |
| 7 | 8/26/16 | 6:51 AM | - | | x | | 17 | Failed cal due to TRS span drift | Ran initial call, OK |
| | | | | | | | | | |
| 1 | 9/10/16 | 8:00 AM | - | | x | | 230 | Monitor spiking | Replaced blow back soleniod, changed recovery time |
| 2 | 9/19/16 | 1:00 PM | - | | x | | 120 | Monitor maintenance | Replaced filters. Bled water from air lines. |
| 3 | 9/21/16 | 12:15 PM | - | | x | | 165 | Monitor maintenance | Changed probe filter and ran calibration |
| | | | | | | | | | |
| 1 | 10/4/16 | 6:30 AM | - | | x | | 17 | High O2 drift | Ran initial cal |
| 2 | 10/5/16 | 6:30 AM | - | | x | | 480 | Failed morning cal; O2 span drift | Calibrated O2 signal isolator card and replaced citi cell; ran manual cal. |
| | | | | | | | | | |
| 1 | 11/26/16 | 6:29 AM | - | | x | | 16 | Failed morning cal; -1 span drift | Ran initial cal |
| 2 | 11/28/16 | 12:00 PM | - | | x | | 270 | CTC screen changed due to power failure within the CTC unit | Cal. The citi-cell on the stack, ran pre-cal on 43 unit, ran int cal and normal cal |
| | | | | | | | | | |
| 1 | 12/3/16 | 6:00 AM | - | | x | | 50 | Failed morning cal, O2 span drift | Ran manual cal. |
| 2 | 12/5/16 | 3:00 PM | - | | x | | 180 | O2 span drift failure | Changed citi-cell and calibrated, ran initial cal by using PLC2704. |
| 3 | 12/6/16 | 6:15 AM | - | | x | | 2970 | Failed morning cal, O2 span drift | Remote I/O board out of calibration; calibrated and returned to service |
| 4 | 12/8/16 | 6:15 AM | - | | x | | 260 | Failed morning cal, O2 span drift | Remote I/O board out of calibration again; replaced board and calibrated. Ran several calibrations with good results. Returned to service. |
| 5 | 12/23/16 | 9:20 AM | - | | x | | 40 | Failed morning cal | Replaced probe filter, blew out lines, calibrated 43i, ran intial cal. And normal cal. |
| 6 | 12/30/16 | 9:00 AM | - | | x | | 60 | No problem | Calibrated 43i, ran int cal and normal cal |
| | | | | | | | | | |
| | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR QUARTERLY REPORT LOG

## Combination Boiler No. 1

**ID 2605** **SIP**

**Reporting Period 10/1/16 to 12/31/16**

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | EP Bypass Time | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | | |
| | | | | | | | | | | |
| 1 | 10/11/16 | 8:12 PM | - | x | | | 83 | 83 | Fire in Hopper | Pulled bark, added fire water, bypassed EP |
| | | | | | | | | | | |
| 1 | 11/2/16 | 10:00 AM | - | x | | | 60 | | Quarterly PM | Completed PM |
| 2 | 11/2/16 | 3:12 PM | - | x | | | 48 | | Quarterly PM | Completed PM |
| 3 | 11/5/16 | 6:12 PM | 59 | x | | | 12 | | CB1 Shutdown | Pulled bark, shutting down boiler |
| | | | | | | | | | | |
| 1 | 12/12/16 | 7:00 PM | - | x | | | 40 | | Excessive dirt drift fault | Cleaned and calibrated |
| | | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR QUARTERLY REPORT LOG

## Combination Boiler No. 2

**ID 3705** **SIP**

**Reporting Period 10/1/16 to 12/31/16**

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Inci-dent No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | EP Bypass Time | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | | | | | |
| 1 | 11/2/16 | 9:54 AM | - | x | | | 66 | | Quarterly PM | Completed PM |
| 2 | 11/2/16 | 4:42 PM | - | x | | | 36 | | Quarterly PM | Completed PM |
| 3 | 11/28/16 | 12:12 PM | 47 | x | | | 6 | | High steam load when PM2 went down | Cut air, shut screw off and back master off |
| 1 | 12/1/16 | 7:50 AM | - | x | | | 25 | | Opacity reading higher than normal | Cleaned purge filters, cleaned lenses, aligned |
| 2 | 12/3/16 | 7:42 PM | 48 | x | | | 6 | | Wet bark | Cut air and bark |
| 3 | 12/3/16 | 8:36 PM | 43 | x | | | 6 | | Wet bark | Cut air and bark |
| 4 | 12/6/16 | 10:00 AM | - | x | | | 15 | | Opacity reading higher than normal | Cleaned purge filters, cleaned lenses, aligned |
| 5 | 12/9/16 | 7:30 AM | - | x | | | 90 | | Excessive dirt drift alarm | Replaced filters, cleaned lenses, ran sets |
| 6 | 12/10/16 | 5:30 AM | - | x | | | 60 | | Failed morning cal, zero drift | Ran cal, OK |
| 7 | 12/14/16 | 9:42 PM | 53 | x | | | 6 | | Unknown monitor spiked | None |
| 8 | 12/15/16 | 10:48 AM | 60 | x | | | 12 | | Tripped EP working on EP fire protection system | Reset EP |
| 9 | 12/15/16 | 11:30 AM | 50 | x | | | 6 | | Tripped EP working on EP fire protection system | Reset EP |
| 10 | 12/19/16 | 11:30 AM | 18 | x | | | 60 | | Fire in hopper | Removed bark and washed hopper |
| 11 | 12/21/16 | 11:30 PM | 6 | x | | | 6 | | Unknown monitor spiked | None |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

**ID 2605** **SIP**

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Combination Boiler No. 1

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | EP Bypass Time | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | | |
| | | | | | | | | | | |
| 1 | 7/7/16 | 2:12 AM | 45 | x | | | 6 | | Burners tripped out | Reset burners |
| 2 | 7/10/16 | 9:48 AM | - | x | | | 6 | 6 | Fire alarm failure and bypassed EP | Reset alarm panel and returned EP |
| 3 | 7/11/16 | 3:40 PM | - | x | | | 48 | 48 | Fire in hopper | Pulled bark, added fire water, bypassed EP |
| 4 | 7/13/16 | 5:48 AM | - | x | | | 72 | 72 | Pulled bark, preparing for shut of CB1 | Shut down CB1 |
| | | | | | | | | | | |
| 1 | 8/10/16 | 7:36 AM | - | x | | | 42 | 42 | Boiler hopper work | Pulled bark |
| 2 | 8/11/16 | 9:30 AM | - | x | | | 75 | 75 | Quarterly PM | Completed PM |
| 3 | 8/17/16 | 8:00 AM | - | x | | | 234 | 234 | Maint. working on bark bin screws | Pulled bark, bypassed EP, completed work |
| | | | | | | | | | | |
| 1 | 9/6/16 | 9:36 AM | - | x | | | 45 | 45 | Pulled bark and bypassed EP for maint | Completed work, returned bark and EP |
| 2 | 9/18/16 | 6:05 AM | - | x | | | 85 | 85 | Fire in Hopper | Pulled bark, added fire water, bypassed EP |
| 3 | 9/28/16 | 1:20 PM | - | x | | | 62 | 62 | Fire in Hopper | Pulled bark, added fire water, bypassed EP |
| | | | | | | | | | | |
| 1 | 10/11/16 | 8:12 PM | - | x | | | 83 | 83 | Fire in Hopper | Pulled bark, added fire water, bypassed EP |
| | | | | | | | | | | |
| 1 | 11/2/16 | 10:00 AM | - | x | | | 60 | | Quarterly PM | Completed PM |
| 2 | 11/2/16 | 3:12 PM | - | x | | | 48 | | Quarterly PM | Completed PM |
| 3 | 11/5/16 | 6:12 PM | 59 | x | | | 12 | | CB1 Shutdown | Pulled bark, shutting down boiler |
| | | | | | | | | | | |
| 1 | 12/12/16 | 7:00 PM | - | x | | | 40 | | Excessive dirt drift fault | Cleaned and calibrated |
| | | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

**ID 3705** **SIP**

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Combination Boiler No. 2

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5C.08.1(B), 5C.08.2(B), 5C.08.6, & 5C.08.7
This report is for incidents of excess opacity (reported in % opacity), opacity monitor downtime or repair, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | % Opacity or ppm | Monitor (Check One) | | | | EP Bypass Time | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | OPA | TRS | O2 | Duration (Minutes) | | | |
| | | | | | | | | | | |
| 1 | 7/7/16 | 1:00 AM | 41 | x | | | 6 | | Master fuel tripped | Reset and restarted |
| 2 | 7/8/16 | 4:54 PM | 41 | x | | | 6 | | IK Malfunction | Unplugged IK |
| 3 | 7/16/16 | 8:06 PM | - | x | | | 18 | 18 | Pulled bark and bypassed ESP | Begin annual shutdown |
| | | | | | | | | | | |
| 1 | 8/1/16 | 7:00 PM | - | x | | | 378 | 378 | Monitor not communicating between stack and control room | Changed mother board and calibrated |
| 2 | 8/11/16 | 9:30 AM | - | x | | | 75 | 75 | Quarterly PM | Completed PM |
| 3 | 8/31/16 | 1:18 PM | 44 | x | | | 6 | | Wet bark | Put gas burner in Boiler |
| | | | | | | | | | | |
| 1 | 9/6/16 | 10:18 AM | 62 | x | | | 6 | | #2 FD fan shutdown | Restarted FD fan |
| | | | | | | | | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | | | | | |
| | | | | | | | | | | |
| 1 | 11/2/16 | 9:54 AM | - | x | | | 66 | | Quarterly PM | Completed PM |
| 2 | 11/2/16 | 4:42 PM | - | x | | | 36 | | Quarterly PM | Completed PM |
| 3 | 11/28/16 | 12:12 PM | 47 | x | | | 6 | | High steam load when PM2 went down | Cut air, shut screw off and back master off |
| | | | | | | | | | | |
| 1 | 12/1/16 | 7:50 AM | - | x | | | 25 | | Opacity reading higher than normal | Cleaned purge filters, cleaned lenses, aligned |
| 2 | 12/3/16 | 7:42 PM | 48 | x | | | 6 | | Wet bark | Cut air and bark |
| 3 | 12/3/16 | 8:36 PM | 43 | x | | | 6 | | Wet bark | Cut air and bark |
| 4 | 12/6/16 | 10:00 AM | - | x | | | 15 | | Opacity reading higher than normal | Cleaned purge filters, cleaned lenses, aligned |
| 5 | 12/9/16 | 7:30 AM | - | x | | | 90 | | Excessive dirt drift alarm | Replaced filters, cleaned lenses, ran sets |
| 6 | 12/10/16 | 5:30 AM | - | x | | | 60 | | Failed morning cal, zero drift | Ran cal, OK |
| 7 | 12/14/16 | 9:42 PM | 53 | x | | | 6 | | Unknown monitor spiked | None |
| 8 | 12/15/16 | 10:48 AM | 60 | x | | | 12 | | Tripped EP working on EP fire protection system | Reset EP |
| 9 | 12/15/16 | 11:30 AM | 50 | x | | | 6 | | Tripped EP working on EP fire protection system | Reset EP |
| 10 | 12/19/16 | 11:30 AM | 18 | x | | | 60 | | Fire in hopper | Removed bark and washed hopper |
| 11 | 12/21/16 | 11:30 PM | 6 | x | | | 6 | | Unknown monitor spiked | None |
| | | | | | | | | | | |
| | | | | | | | | | | |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## Low Volume High Concentration Gas System

**ID 2605, ID 3705 SIP, NSPS**

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)

This report is for indicated emissions from the digester and/or multiple effect evaporator systems exceeding 5 minutes duration, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | LVHC System Leg | Duration (Minutes) | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|
| | | | | | | |
| 1 | 7/18/2016 | 12:16 PM | PH: Evap 1 | 104 | Solenoid failed on vent valve | Replaced solenoid |
| | | | | | | |
| 1 | 8/2/2016 | 1:32 AM | PH: Evap 2 | 89 | Instrument air line failed on vent valve causing vent | Repaired air line, returned LVHC |
| 2 | 8/2/2016 | 6:49 PM | PH: LVHC all | 7 | Water got into vent valve from hard rain fall causing valve to be shown on the DCS between states, resulting alarm caused the vent | Cleared water out of valve head, alarm cleared, LVHC returned |
| 3 | 8/31/2016 | 1:23 PM | PH: LVHC | 10 | Low steam flow on CB2, heavy rain | Put gas burner in CB2 |
| | | | | | | |
| 1 | 9/8/2016 | 7:21 AM | PH: LVHC, Feed Tank | 40 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 2 | 9/8/2016 | 8:09 AM | PH: LVHC | 83 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 3 | 9/8/2016 | 7:21 AM | FL: Turp, Stand Pipe | 36 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 4 | 9/20/2016 | 1:11 PM | PH: all<br>FL: Turp, Stand Pipe | 51 | CB1 tripped | Restart CB1 |
| 5 | 9/22/2016 | 10:20 PM | PH: all | 20 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 6 | 9/22/2016 | 10:30 PM | PH: Evap 3 | 65 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 7 | 9/22/2016 | 10:41 PM | PH: all | 7 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 8 | 9/22/2016 | 11:42 PM | PH: all | 8 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 9 | 9/22/2016 | 11:42 PM | PH: Evap 3 | 78 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 10 | 9/23/2016 | 1:42 AM | PH: all | 63 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 11 | 9/26/2016 | 7:19 PM | PH: all, FL: all | 8 | High steam swing due to fiberline startup | Increased boiler output |
| 12 | 9/27/2016 | 9:17 AM | PH: all | 12 | Swing in steam header | Stabilize header |
| 13 | 9/27/2016 | 9:17 AM | FL: Stand Pipe, Decanter | 23 | Swing in steam header and standpipe vent valve would not close | Stabilize header and prep to replace acuator |
| 14 | 9/27/2016 | 1:15 PM | FL: Stand Pipe | 17 | Vent valve would not close | Replaced valve acuator |
| | | | | | | |
| There were no excursion events or downtime during the month of October 2016. | | | | | | |
| | | | | | | |
| 1 | 11/3/2016 | 10:12 AM | PH: LVHC | 8 | Low header pressure | Returned header pressure |
| 2 | 11/8/2016 | 7:35 PM | FL: LVHC | 110 | High temperature due to process upset | Shut down process, reduced temperature and returned gas to header |
| 3 | 11/9/2016 | 7:41 AM | PH: LVHC | 14 | Low header pressure | Valve stuck in vent position, I/M forced air to close valve |
| 4 | 11/12/2016 | 1:41 AM | PH: LVHC | 8 | Trying to get burners in CB2 because hog plugged up, gas valve tripped and stuck in vent | Manually closed valve |
| 5 | 11/15/2016 | 9:25 PM | PH: LVHC | 6 | Gas header tripped, lost ignite flame | Reset gas header |
| 6 | 11/16/2016 | 3:37 PM | PH: LVHC | 8 | Switching combustion sources and gas header tripped | Reset gas header |
| | | | | | | |
| 1 | 12/12/2016 | 10:05 PM | PH: LVHC | 30 | Low header pressure, wet bark on CB2, tripped turbine, tripped RB2 | CB2 and RB2 back on line, reset LVHC system |
| 2 | 12/19/2016 | 8:40 AM | PH: LVHC | 7 | Fire in hopper in CB2 | Switched gases to CB1 |
| 3 | 12/20/2016 | 3:08 AM | Misc Sources | 19 | Low pressure on 150 lb header and RB2 tripped…Lost steam on ejector | Return header to system pressure, return steam to LVHC ejector |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____

Resolute Forest Products – Catawba Mill
5300 Cureton Ferry Road
Post Office Box 7
Catawba, SC 29704-0007

# CONTINUOUS EMISSION MONITOR SEMI-ANNUAL REPORT LOG

## High Volume Low Concentration Gas System

**ID 2605, ID 3705** **SIP, NSPS**

**Report Period 7/1/16 to 12/31/16**

Permit Conditions 5.C.08.1(B), 5.C.08.2(B1), 5.C.08.7, & MACT.1(C)
This report is for indicated emissions from the fiberline, pulp washing systems, oxygen delignification, and screening/knotting systems exceeding 5 minutes duration, or permit condition exceptions.

| Incident No. | Date | Start Time (am or pm) | HVLC System Leg | Duration (Minutes) | Nature and Cause of Incident | Corrective Action |
|---|---|---|---|---|---|---|
| | | | | | | |
| There were no excursion events or downtime during the month of July 2016. | | | | | | |
| | | | | | | |
| 1 | 8/31/2016 | 1:23 PM | PH: HVLC | 10 | Low steam flow on CB2, heavy rain | Put gas burner in CB2 |
| | | | | | | |
| 1 | 9/5/2016 | 8:38 AM | PH: HVLC | 12 | Bypass hog, screws plugged, low steam flow CB2 | Put fuel in CB2 |
| 2 | 9/8/2016 | 7:21 AM | PH: HVLC | 26 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| 3 | 9/9/2016 | 3:14 AM | FL: HLVC | 57 | Air line broke controlling hot water relief condenser valve; got too hot and resulted in vent | Ran air line to hot water valve to cool system and stop vent |
| 4 | 9/20/2016 | 1:11 PM | PH: HVLC | 39 | CB1 tripped | Restart CB1 |
| 5 | 9/22/2016 | 10:15 PM | PH: HVLC | 65 | Genius block failed (PH) | Called maintenance and repaired Genius block |
| | | | | | | |
| 1 | 10/23/2016 | 9:11 AM | PH: HVLC | 8 | Boiler tripped offline | Switch to back boiler for gas incineration |
| | | | | | | |
| 1 | 11/3/2016 | 10:12 AM | PH: HVLC | 86 | Low header pressure, vent failed to close | Returned header pressure, called E&I, repaired vent |
| 2 | 11/3/2016 | 11:42 AM | PH: HVLC | 7 | Low header pressure | Returned header pressure |
| | | | | | | |
| 1 | 12/17/2016 | 7:24 AM | PH: HVLC | 93 | Belts on transport fan broke | Replaced fan belts |
| 2 | 12/20/2016 | 11:20 AM | PH: LVHC | 59 | Belts on transport fan broke | Replaced fan belts |

Based on data provided, reasonable inquiry, and the best of my abilities, I certify that the information contained in this report is accurate and complete.

Name/Title: Wayne Griffin General Manager

Signature: _____